

**What is claimed is:**

1           1.    A portable computer comprising:  
2           a desktop type processor;  
3           a power management controller for judging the type  
4           of the power of the portable computer; and  
5           a clock generator, coupled to the power management  
6           controller and the desktop type processor  
7           respectively, for outputting a clock signal  
8           based on a control signal from the power  
9           management controller and a judge signal from  
10          the desktop type processor so as to determine  
11          an operational frequency and an operational  
12          voltage of the desktop type processor.

1           2.    The portable computer as claimed in claim 1,  
2           wherein the clock generator includes a plurality of  
3           transformation tables therein so that the clock generator  
4           generates the clock signal from the control signal and  
5           the judge signal by referencing the transformation  
6           tables.

1           3.    The portable computer as claimed in claim 2,  
2           further comprising:

3           a DC power supply coupled to the power management  
4           controller so that the power management  
5           controller outputs a first control signal to  
6           the clock generator, wherein the clock signal  
7           of the clock generator is changed by the  
8           transformation table corresponding to the first  
9           control signal.

1           4.    The portable computer as claimed in claim 3,  
2           wherein the DC power supply is a battery.

1           5.    The portable computer as claimed in claim 2,  
2           further comprising:

3           an AC power supply coupled to the power management  
4           controller so that the power management  
5           controller outputs a second control signal to  
6           the clock generator, wherein the clock signal  
7           of the clock generator is changed by the  
8           transformation table corresponding to the  
9           second control signal.

1           6.    The portable computer as claimed in claim 1,  
2           further comprising:

3           a chipset coupled to the clock generator, wherein an  
4           operational frequency and an operational  
5           voltage of the chipset are changed based on the  
6           operational frequency and voltage of the  
7           desktop type processor.

1           7.    The portable computer as claimed in claim 1,  
2           further comprising:

3           a memory coupled to the clock generator, wherein an  
4           operational frequency and an operational  
5           voltage of the memory are changed based on the  
6           operational frequency and voltage of the  
7           desktop type processor.

1           8.    The portable computer as claimed in claim 1,  
2           further comprising:

3 a converter coupled to the clock generator and the  
4 desktop type processor so as to convert the  
5 voltage of the clock generator to the  
6 operational voltage of the desktop type  
7 processor.

1 9. The portable computer as claimed in claim 1,  
2 wherein the desktop type processor includes a plurality  
3 of calculation modes therein, and the operational  
4 frequency and voltage of the desktop type processor are  
5 linearly changed when the calculation modes change.

1 10. A power saving method for a portable computer  
2 with a desktop type processor, comprising:  
3 providing a plurality of transformation tables; and  
4 determining an operational frequency and an  
5 operational voltage of the desktop type  
6 processor from the type and a calculation mode  
7 of the desktop type processor by referencing  
8 the transformation tables.

1 11. The method as claimed in claim 10, wherein the  
2 operational frequency and voltage of the desktop type  
3 processor are linearly changed when the calculation mode  
4 of the desktop type processor changes.

1 12. The method as claimed in claim 10, wherein the  
2 portable computer further includes a chipset, and the  
3 method further comprises:

4 determining an operational frequency and an  
5 operational voltage of the chipset from the

6 operational frequency and voltage of the  
7 desktop type processor.

1 13. The method as claimed in claim 10, wherein the  
2 portable computer further includes a memory, and the  
3 method further comprises:

4 determining an operational frequency and an  
5 operational voltage of the memory from the  
6 operational frequency and voltage of the  
7 desktop type processor.